<table>
<thead>
<tr>
<th>Database</th>
<th>Subjects</th>
<th>Pain Type</th>
<th>Pain Intensity Estimation</th>
<th>ML Classifiers</th>
<th>Average Accuracy</th>
<th>Average Precision</th>
<th>Average Recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNBC-McMaster</td>
<td>shoulder pain</td>
<td>Pain detection</td>
<td>Support Vector Machine (SVM)</td>
<td>0, 1, 2-3, greater than 4</td>
<td>89.59%</td>
<td>89.00%</td>
<td>85.60%</td>
</tr>
<tr>
<td>X-ITE Pain</td>
<td>shoulder pain</td>
<td>Pain intensity estimation</td>
<td>Convolutional Neural Network (CNN)</td>
<td>0, 1, 2, and 3</td>
<td>78.00%</td>
<td>79.00%</td>
<td>75.00%</td>
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<tr>
<td>UNBC-McMaster</td>
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<td>94.50%</td>
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<td>86.00%</td>
</tr>
<tr>
<td>University students</td>
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Metrological Characterization of a Pain Detection System Based on Transfer Entropy of Facial Landmarks | IEEE Journals & Magazine

UNBC-McMaster database
self-identified shoulder pain
Visual Analog Scale
Linear discriminant analysis
Pain detection: DOP
Pain intensity: DOP
Average accuracy: 85.00%

UNBC-McMaster database
self-identified shoulder pain
Facial landmark transfer entropy (PI)
Convolutional Neural Networks (CNNs)
Pain detection: DOP
Pain intensity: DOP
Average accuracy: 79.00%

BioVid database (part A)
self-identified shoulder pain
Self-identified shoulder pain
Facial landmark transfer entropy (PI)
Convolutional Neural Networks (CNNs)
Pain detection: DOP
Pain intensity: DOP
Average accuracy: 85.00%

BioVid database (part B)
self-identified shoulder pain
Self-identified shoulder pain
Facial landmark transfer entropy (PI)
Convolutional Neural Networks (CNNs)
Pain detection: DOP
Pain intensity: DOP
Average accuracy: 79.00%

Pediatric postoperative pain
Numerical Rating Scale (NRS)
Logistic regression and linear regression models
Pain detection: NRS (≥ 4)
Pain intensity estimation: NRS
Baseline pain: AUC = 0.84
Baseline pain: r = 0.47; z = 4.4*

Volunteers
videos of acute illness (fake)
cost of lipopolysaccharide (LPS) which triggers an immune response resembling acute illness
Neural transfer convolutional neural network (NT-CNN) and four Convolutional Neural Networks (CNNs)
Pain detection: DOP
Pain intensity: DOP
Baseline pain: AUC = 0.67

Automated Assessment of Children’s Postoperative Pain Using Computer Vision | Pediatrics
Pediatric patients from a tertiary care center
postoperative pain
Numerical Rating Scale (NRS)
Logistic regression and linear regression models
Pain detection: NRS (≥ 4)
Pain intensity estimation: NRS
Baseline pain: AUC = 0.84
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Deep Learning for Identification of Acute Illness and Facial Cues of Illness
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Average Accuracy | Stenage Accuracy | Stenage Accuracy